

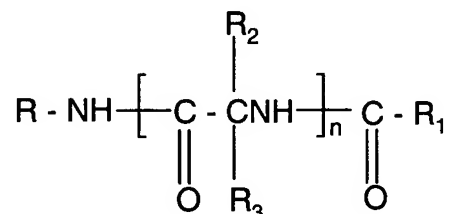
AMENDMENTS TO THE CLAIMS:

The following is a listing of the Claims pending in the above-identified application. This listing of the claims will replace all prior versions and listing of claims in the application. This listing also includes amendments to the claims, which may cancel claims or delete subject matter from the claims. Any claim cancelled or subject matter deleted is without prejudice.

LISTING OF CLAIMS:

1.-34. (Cancelled)

35. (Currently Amended) A method of treating a patient suffering from bipolar disorder ~~disease~~ comprising administering thereto a therapeutically effective amount of a compound for treating bipolar ~~disease~~ disorder, said compound having the formula:



wherein

R is aryl lower alkyl, and R is unsubstituted or is substituted with at least one electron withdrawing group or electron donating group;

R₁ is lower alkyl and is unsubstituted or substituted with at least one electron withdrawing group or electron donating group;

R₂ is hydrogen, lower alkyl, lower alkenyl, lower alkynyl, aryl lower alkyl, aryl, halo, heterocyclic, heterocyclic lower alkyl, lower alkyl heterocyclic, lower cycloalkyl, lower cycloalkyl lower alkyl, or Z-Y,

R₃ is lower alkyl, lower alkenyl, lower alkynyl, aryl, aryl lower alkyl, halo, heterocyclic, heterocyclic lower alkyl, lower alkyl heterocyclic, lower cycloalkyl, lower cycloalkyl lower alkyl or ZY; wherein R₂ and R₃ may be unsubstituted or substituted with at least one electron withdrawing group or electron donating group, and wherein heterocyclic in R₂ and R₃ is furyl, thienyl, pyrazolyl, pyrrolyl, imidazolyl, indolyl, thiazolyl, oxazolyl, isothiazolyl, isoxazolyl, piperidyl, pyrrolinyl, piperazinyl, quinolyl, triazolyl, tetrazolyl, isoquinolyl, benzofuryl, benzothienyl, morpholiny, benzoxazolyl, tetrahydrofuryl, pyranyl, indazolyl, purinyl, indoliny, pyrazolindinyl, imidazoliny, imidazolindinyl, pyrrolidinyl, furazanyl, N-methylindolyl, methylfuryl, pyridazinyl, pyrimidinyl, pyrazinyl, epoxy, aziridino, oxetanyl or azetidiny;

Z is O, S, or NR₆';

Y is hydrogen, lower alkyl, aryl, aryl lower alkyl, lower alkenyl, or lower alkynyl, and Y may be unsubstituted or substituted with an electron donating group or an electron withdrawing group, or

ZY taken together is NR₄NR₅R₇, NR₄OR₅, or ONR₄R₇;

R₆' is hydrogen or lower alkyl and R₆' may be unsubstituted or substituted with an electron withdrawing group or an electron donating group;

R₄ and R₅ are independently hydrogen, lower alkyl, aryl, aryl lower alkyl, lower alkenyl, or lower alkynyl, wherein R₄ and R₅ are independently unsubstituted or substituted with an electron withdrawing group or an electron donating group; and

R₇ is COOR₈, COR₈, hydrogen, lower alkyl, aryl, or aryl lower alkyl wherein R₇ may be unsubstituted or substituted with an electron withdrawing group or electron donating group;

R₈ is hydrogen or lower alkyl, or aryl lower alkyl, and the aryl or alkyl group may be unsubstituted or substituted with an electron withdrawing group or an electron donating group; and

n is 1;

wherein the electron withdrawing group and electron donating group are selected from the group consisting of halo, nitro, lower alkenyl, lower alkynyl, formyl, aryl, trifluoromethyl, aryl lower alkanoyl, lower alkoxy carbonyl, hydroxy, lower alkoxy, lower alkyl, mercapto, lower alkylthio and lower alkylidithio.

36. (Previously Presented) The method according to Claim 35 wherein R₂ is hydrogen.

37.-39. (Cancelled)

40. (Currently Amended) The method according to Claim 35 wherein R₂ is hydrogen, lower alkyl, aryl, aryl lower alkyl, heterocyclic lower alkyl or ZY and R₃ are independently lower alkyl, aryl, aryl lower alkyl, heterocyclic, heterocyclic lower alkyl, or ZY; and R₂ and R₃ are independently unsubstituted or substituted ~~by an~~ with said electron withdrawing group or electron donating group.

41. (Currently Amended) The method according to Claim 40 wherein R₂ is hydrogen and R₃ is lower alkyl, aryl, aryl lower alkyl, heterocyclic, heterocyclic lower alkyl or ZY; which R₃ may be unsubstituted or substituted with ~~an~~ said electron withdrawing group or electron donating group.

42. (Currently Amended) The method according to Claim 35 wherein

R₂ is hydrogen and R₃ is lower alkyl, which may be unsubstituted or substituted with ~~an~~ said electron donating or electron withdrawing group.

43. (Currently Amended) The method according to Claim 42 wherein R₃ is lower alkyl which is unsubstituted or substituted with hydroxy or lower alkoxy, or NR₄OR₅, wherein R₄ and R₅ are independently hydrogen or lower alkyl, R is aryl lower alkyl, which aryl group may be unsubstituted or substituted with ~~an~~ said electron withdrawing group or electron donating group and R₁ is lower alkyl.

44. (Original) The method according to Claim 41 wherein R₃ is heterocyclic.

45. (Original) The method according to Claim 44 wherein heterocyclic is heteroaromatic.

46. (Original) The method according to Claim 45 wherein R₃ is furyl, pyridyl, thienyl or thiazolyl.

47. (Original) The method according to Claim 43 wherein aryl is phenyl.

48. (Original) The method according to Claim 43 wherein aryl is phenyl and is unsubstituted or substituted with halo.

49. (Previously Presented) The method according to Claim 35 wherein the compound is

(R)-N-Benzyl-2-acetamido-3-methoxy- propionamide;

O-methyl-N-acetyl-D-serine-m-fluorobenzylamide;

O-methyl-N-acetyl-D-serine-p-fluorobenzylamide;

N-acetyl-D-phenylglycinebenzylamide;

D-1,2-(N, O-dimethylhydroxylamino)-2- acetamide acetic acid benzylamide;

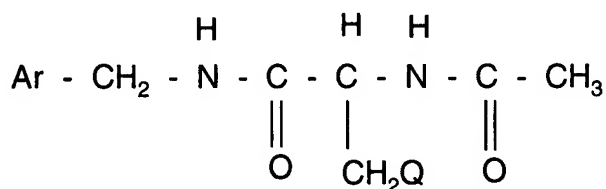
D-1,2-(O-methylhydroxylamino)-2-acetamide acetic acid benzylamide.

50.-56. (Cancelled)

57. (Original) The method according to Claim 35 wherein the carbon atom which is substituted by R₂ and R₃ is in the D configuration.

58.-67. (Cancelled)

68. (Previously Presented) The method of Claim 35 wherein the compound is of the formula:



wherein

Ar is aryl which is unsubstituted or substituted with an electron donating or electron withdrawing group, and

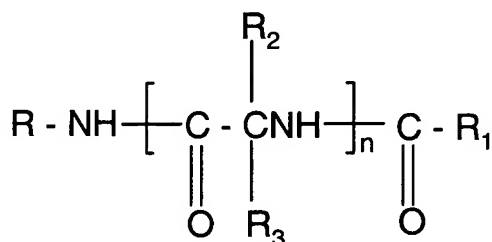
Q is lower alkoxy.

69. (Original) The method according to Claim 68 wherein Ar is unsubstituted aryl or aryl substituted with halo.
70. (Original) The method according to Claim 68 wherein Q is methoxy.
71. (Original) The method according to Claim 68 wherein Q is methoxy and Ar is unsubstituted aryl or aryl substituted with halo.
72. (Original) The method according to Claim 68 wherein the carbon atom which is bonded to CH₂Q is in the D configuration.
73. (Previously Presented) The method according to Claim 35 wherein R is benzyl which may be unsubstituted or substituted with an electron withdrawing group or electron donating group.
74. (Previously Presented) The method according to Claim 35 wherein R₁ is methyl.
75. (Previously Presented) The method according to Claim 35 wherein R is benzyl, R₁ is lower alkyl and R₂ is hydrogen.
76. (Previously Presented) The method according to Claim 75 wherein R₃ is CH₂Q, NR₄OR₅ or NR₄NR₅R₇, wherein Q is lower alkoxy, R₄ is hydrogen or alkyl containing 1-3 carbon atoms, R₅ is hydrogen or alkyl containing 1-3 carbon atoms and R₇ is hydrogen or alkyl containing 1-3 carbon atoms.

77. (Previously Presented) The method according to Claim 76 wherein R_3 is CH_2Q .
78. (Previously Presented) The method according to Claim 35 wherein R_1 is methyl, R is benzyl, R_2 is hydrogen, and R_3 is CH_2Q wherein Q is methoxy.
79. (Previously Presented) The method according to Claim 35 wherein R_1 is methyl, R is m-fluorobenzyl, R_2 is H and R_3 is CH_2Q , wherein Q is methoxy.
80. (Previously Presented) The method according to Claim 35 wherein R_1 is methyl, R is p-fluorobenzyl, R_2 is H, and R_3 is CH_2Q wherein Q is methoxy.
81. (Previously Presented) The method according to Claim 35 wherein R_1 is methyl, R is benzyl, R_2 is hydrogen and R_3 is phenyl.
82. (Currently Amended) The method according to Claim 35 wherein R_1 is methyl, R is benzyl, R_2 ~~is~~ hydrogen and R_3 is $N(CH_3)OCH_3$.
83. (Previously Presented) The method according to Claim 35 wherein R_1 is methyl, R is benzyl, R_2 is hydrogen and R_3 is $NH(OCH_3)$.
84. (Previously Presented) The method according to Claim 35 wherein R_1 is methyl, R is fluorophenyl, R_2 is H, and R_3 is CH_2Q , wherein Q is methoxy.

85.-102. (Cancelled)

103. (New) A method for treating a patient suffering from bipolar disorder comprising administering to said patient a therapeutically amount of a compound of the formula:



wherein

R is aryl lower alkyl and R is unsubstituted or is substituted with at least one electron withdrawing group or electron donating group selected from the group consisting of halo, nitro, lower alkenyl, lower alkynyl, formyl, aryl, trifluoromethyl, lower alkoxy carbonyl, aryl lower alkanoyl, hydroxy, lower alkoxy, lower alkyl, mercapto, lower alkylthio, and lower alkylidithio;

R₁ is methyl, and is unsubstituted or substituted with an electron donating group or an electron withdrawing group selected from the group consisting of halo, nitro, lower alkenyl, lower alkynyl, formyl, aryl, trifluoromethyl, lower alkoxy carbonyl, aryl lower alkanoyl, hydroxy, lower alkoxy, lower alkyl, mercapto, lower alkylthio, and lower alkylidithio;

R₂ is hydrogen, lower alkyl, lower alkenyl, lower alkynyl, aryl, aryl lower alkyl, halo, heterocyclic, heterocyclic lower alkyl, lower alkyl heterocyclic, lower cycloalkyl, lower cycloalkyl lower alkyl, or ZY;

R₃ is lower alkyl, lower alkenyl, lower alkynyl, aryl, aryl lower alkyl, halo, heterocyclic, heterocyclic lower alkyl, lower alkyl heterocyclic, lower cycloalkyl, lower cycloalkyl lower alkyl or ZY;

wherein R_2 and R_3 may be unsubstituted or substituted with at least one electron withdrawing group or electron donating group and wherein heterocyclic in R_2 and R_3 is furyl, thienyl, pyrazolyl, pyrrolyl, imidazolyl, indolyl, thiazolyl, oxazolyl, isothiazolyl, isoxazolyl, piperidyl, pyrrolinyl, piperazinyl, quinolyl, triazolyl, tetrazolyl, isoquinolyl, benzofuryl, benzothienyl, morpholinyl, benzoxazolyl, tetrahydrofuryl, pyranyl, indazolyl, purinyl, indolinyl, pyrazolindinyl, imidazolindyl, imidazolindinyl, pyrrolidinyl, furazanyl, N-methylindolyl, methylfuryl, pyridazinyl, pyrimidinyl, pyrazinyl, epoxy, aziridino, oxetanyl or azetidiny;

Z is O or NR_6' ;

Y is hydrogen, lower alkyl, aryl, aryl lower alkyl, lower alkenyl or lower alkynyl, and Y may be unsubstituted or substituted with an electron donating group or an electron withdrawing group, or

ZY taken together is $NR_4NR_5R_7$, NR_4OR_5 , or ONR_4R_7 ;

R_6' is hydrogen or lower alkyl;

R_4 and R_5 are independently hydrogen, lower alkyl, aryl, aryl lower alkyl, lower alkenyl, or lower alkynyl, and R_4 and R_5 may be independently unsubstituted or substituted with an electron withdrawing group or an electron donating group;

R_7 is $COOR_8$, COR_8 , hydrogen, lower alkyl, aryl or aryl lower alkyl, which R_7 may be unsubstituted or substituted with an electron withdrawing group or electron donating group;

R_8 is hydrogen or lower alkyl, or aryl lower alkyl, and the aryl or alkyl group may be unsubstituted or substituted with an electron withdrawing group or an electron donating group; and

n is 1.

104. (New) The method according to Claim 103 wherein R_1 is methyl which is unsubstituted.
105. (New) The method according to Claim 103 wherein R is benzyl, which is unsubstituted or substituted on the phenyl ring with said electron donating group or electron withdrawing group.
106. (New) The method according to Claim 104 wherein R is benzyl, which is unsubstituted or substituted on the phenyl ring with said electron donating group or electron withdrawing group.
107. (New) The method according to Claim 103 wherein R_2 is hydrogen.
108. (New) The method according to Claim 104 wherein R_2 is hydrogen.
109. (New) The method according to Claim 105 wherein R_2 is hydrogen.
110. (New) The method according to Claim 106 wherein R_2 is hydrogen.
111. (New) The method according to Claim 103 wherein R_3 is lower alkyl which is unsubstituted or substituted with an electron donating group or electron withdrawing group selected from the group consisting of halo, nitro, carboxy, lower alkenyl, lower alkynyl, formyl, aryl, carboxyamido, trifluoromethyl, lower alkoxy carbonyl, aryl lower alkanoyl, hydroxy, lower alkoxy, lower alkyl, amino, lower alkylamino, dilower alkylamino, aryloxy, mercapto or lower alkylthio.

112. (New) The method according to Claim 104 wherein R_3 is lower alkyl which is unsubstituted or substituted with an electron donating group or electron withdrawing group selected from the group consisting of halo, nitro, carboxy, lower alkenyl, lower alkynyl, formyl, aryl, carboxyamido, trifluoromethyl, lower alkoxycarbonyl, aryl lower alkanoyl, hydroxy, lower alkoxy, lower alkyl, amino, lower alkylamino, dilower alkylamino, aryloxy, mercapto or lower alkylthio.

113. (New) The method according to Claim 105 wherein R_3 is lower alkyl which is unsubstituted or substituted with an electron donating group or electron withdrawing group selected from the group consisting of halo, nitro, carboxy, lower alkenyl, lower alkynyl, formyl, aryl, carboxyamido, trifluoromethyl, lower alkoxycarbonyl, aryl lower alkanoyl, hydroxy, lower alkoxy, lower alkyl, amino, lower alkylamino, dilower alkylamino, aryloxy, mercapto or lower alkylthio.

114. (New) The method according to Claim 106 wherein R_3 is lower alkyl which is unsubstituted or substituted with an electron donating group or electron withdrawing group selected from the group consisting of halo, nitro, carboxy, lower alkenyl, lower alkynyl, formyl, aryl, carboxyamido, trifluoromethyl, lower alkoxycarbonyl, aryl lower alkanoyl, hydroxy, lower alkoxy, lower alkyl, amino, lower alkylamino, dilower alkylamino, aryloxy, mercapto or lower alkylthio.

115. (New) The method according to Claim 107 wherein R_3 is lower alkyl which is unsubstituted or substituted with an electron donating group or electron withdrawing group selected from the group consisting of halo, nitro, carboxy, lower alkenyl, lower alkynyl, formyl,

aryl, carboxyamido, trifluoromethyl, lower alkoxy carbonyl, aryl lower alkanoyl, hydroxy, lower alkoxy, lower alkyl, amino, lower alkylamino, dilower alkylamino, aryloxy, mercapto or lower alkylthio.

116. (New) The method according to Claim 108 wherein R_3 is lower alkyl which is unsubstituted or substituted with an electron donating group or electron withdrawing group selected from the group consisting of halo, nitro, carboxy, lower alkenyl, lower alkynyl, formyl, aryl, carboxyamido, trifluoromethyl, lower alkoxy carbonyl, aryl lower alkanoyl, hydroxy, lower alkoxy, lower alkyl, amino, lower alkylamino, dilower alkylamino, aryloxy, mercapto or lower alkylthio.

117. (New) The method according to Claim 109 wherein R_3 is lower alkyl which is unsubstituted or substituted with an electron donating group or electron withdrawing group selected from the group consisting of halo, nitro, carboxy, lower alkenyl, lower alkynyl, formyl, aryl, carboxyamido, trifluoromethyl, lower alkoxy carbonyl, aryl lower alkanoyl, hydroxy, lower alkoxy, lower alkyl, amino, lower alkylamino, dilower alkylamino, aryloxy, mercapto or lower alkylthio.

118. (New) The method according to Claim 110 wherein R_3 is lower alkyl which is unsubstituted or substituted with an electron donating group or electron withdrawing group selected from the group consisting of halo, nitro, carboxy, lower alkenyl, lower alkynyl, formyl, aryl, carboxyamido, trifluoromethyl, lower alkoxy carbonyl, aryl lower alkanoyl, hydroxy, lower alkoxy, lower alkyl, amino, lower alkylamino, dilower alkylamino, aryloxy, mercapto or lower alkylthio.

119. (New) The method according to any one of Claims 103-118 wherein R_3 is lower alkyl substituted with said electron donating group.

120. (New) The method according to Claim 119 wherein R_3 is lower alkyl substituted by lower alkoxy.